PROJECT TRACKING SYSTEM: DATABASE APPLICATION UPGRADE

PLAN CHECK COMMENTS

PROJECT STARTED: DECEMBER 2004

If conflicts exist between the printed text and the pictures, the text takes precedence.

Table of Contents

Business Rules

- Comments will be programmed to be tracked on the Project Tracking "Review" screen.

- The standard comments list will be read-only. Changes will be forwarded to the technical discipline leads of the standard comments list. Additions, changes, or deletions to the standard comments list will be approved by the technical discipline leads.

- Many comments are assigned to one review.

- Comment reports can be printed at any time.

- Comment tables need to be added to the RevLog processes (Excludes look-up tables).

- Only users with Comment_Admin rights will be allowed to Add, Edit, or Remove comments from the Standard Comments list/table.

- The 325 to 331 copy function will copy comment data.

- Project managers (MGR) will not add comments, only plan reviewers. Any comments that managers may have will be appended to the MS Word letters prior to printing.

- All comments can be used by all disciplines, regardless of the discipline type of the comment itself (e.g. Mechanical engineer using FLSO comments). Because of this, we will not limit the list of available comments to discipline specific comments.

- ~~Comments can only be added if there is an in date for a particular discipline, and the out date for that discipline is blank.~~ This will be too difficult to program with the new form procedures.

- Initials will be attached to each comment to indicate who entered the comment. This is so we can tell if the Architect has made Mechanical comments etc. The initials will be picked up from the user that is currently logged into the Project Tracking module.

- Users will have the ability to add comments to reviews that are not currently on the standard comments list. These will be referred to as non-standard comments.

- The Review Comments and Non-Standard Review comments entered for a particular review will be added to the Move to History function.

- Comment format:

F 03 0003

Type of   Code   Sequential
Comment   Year   Number*

- Standard Comment lists will be published to the web and only updated by request of the technical discipline leads.

- "Subject" is defined as a major category of building code part (Major headings of the building code).

- A combo box field will be added to the Project Info screen to denote which code year a project belongs to. This is needed to limit the comments to the applicable code year.

- Comment code years will be restricted to project code years (e.g. A project being reviewed to the 1998 CBC can only have comments attached to one or more reviews from the 1998 CBC).

- Comment button on Review screen will show total number of comments entered similar to the Memo screen button.

- There will be no field staff access at this time.

- At this time, we will not require structural comments for contracted out reviews. Functionality will remain in case structural reviewer chooses to add comments.

- When plans are returned, reviewers need the ability to indicate which comments were resolved.

- Comments from previous reviews will be manually associated with the current review.

- The review comments report will be generated with each plan review letter. If no comments have been made, the report should note that. This report must begin each discipline type's comments on a new page.

Review Screen Modifications

The review screen must be modified to allow plan reviewers to add and delete comments as required and to also allow the generation of a comments report at any time.

Figure 1

1. A new command button will be added to the MGR section below the Ltr field that will read "Comments".
    a. This button will open the Review Comments form.
    b. The button label will display a count of standard and non-standard comments that have been added to this review.
    c. The comments report will be formatted to start each discipline type's comments on a new page. Within each discipline's comments, it will be sorted by sheet, then page number.
    d. This report will be auto-generated when printing a review letter.
        A review that results in an AC (approved with comments) is a different issue. It is not related to the typical plan review and comment process. Auto generation of a report should be generated whenever a review letter is printed. Even if there are no comments, a report should be generated indicating there were no comments.

Review screen comments processes

1. To add, remove, or print comments:
    a. The user will click the comments button located in the MGR section below the Ltr field to access the Review Comments form[1]. See Review Comments form section for further details.

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[1] Each form that opens up should force the user to complete their actions with that form before returning to the previous form.

Review Comments form

This form is accessed from the comments button located in the MGR section below the Ltr field.

The proposed design for the Review Comments form is shown below:

Figure 2

When loaded, this form will show two sets of information. The top data grid is available to display comments from previous reviews. The previous reviews must be manually set by the user prior to the comments being displayed. This is the most accurate and concise way to accomplish this business requirement. The lower data grid will display all comments that have been entered for the current review. To facilitate the viewing of column data, a tool tip text box will appear displaying the entire contents of a cell when hovering over that cell with your mouse.

The upper data grid will contain:
1. A list of comments that have been made on specific previous reviews.

    a. In order to populate this list, the previous reviews must first be manually set by any user[2] by clicking the Select/Set Previous Review(s)… button. See Setting Previous Reviews.

2. The Resolved fields will be combo box's that will allow you to mark a comment in the previous comments list as resolved or unresolved.
3. Columns to be displayed are: ACT, BC, and INC that a particular review belongs to; Sheet, Code, Section, Subject, Comment Number, Comment, Initials of the person making the comment and Resolved from the comment record. The list will have clickable column headers that will re-sort the list.
4. It will contain functionality that allows you to copy the comment information from one or many (Ctrl+click) previous comments into the current comments for this review through drag-n-drop.

The lower data grid will contain:
1. All of the comments for the review sorted by sheet, page, and comment #. The list will have clickable column headers that will re-sort the list.
2. Five command buttons to Print a report of the comments in the grid below, Add… comments, Remove a comment, Save, and a Save/Exit button.

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[2] When programming this function, please make it ready to be able to restrict access to this functionality, but leave it open to all users at this time.

Setting Previous Reviews

To set reviews as previous reviews to a current review, click the Set Previous Reviews button from the Review Comments form.

You will now see the form below:

To use this form:
1. The user would select the review, or use Ctrl+click to select multiple reviews, then click the Set button to set the selected reviews as previous reviews to the one you are working on.
2. If the user accidentally selected a previous review that was not supposed to be associated with this review, they could select that review from the grid, then click the Clear button.
3. There is a Select All button available to facilitate adding previous reviews to smaller projects where all of the previous reviews may be applicable to the current review.
4. The Exit button allows the user to exit the form.

Does there need to be a way to confirm which reviews are selected as previous reviews? Some visual indicator when returning to this form?

Review Comments form processes

To Add… a comment, click the Add… command button, which will load the Add Review Comments form. See Add Review Comments form section for further details.

To Remove a comment, you must first select the comment from the data grid, then click the Remove command button. The Remove button will be disabled until a comment from the data grid is selected.

To exit the form and return to the review screen, click the Save/Exit command button.

NOTE: Comments from previous reviews must be added to the current review if the item(s) are still unresolved.

Add Review Comments form

This form is accessed by clicking the Add… command button on the Review Comments form, which is accessed from the Review screen.

The proposed design for the Add Review Comments form is shown below:

Figure 3

This is the main form a plan reviewer will use to add comments to a particular review. This form has two sections: the search section, used for locating comments, and the comments section, used for selecting and adding a comment to a review.

The search section is separated from the rest of the form with a yellow background containing all of the search section's controls. *We may want to make this search feature available to other parts of the Comments functionality (used on the View Comments form).* The search section contains:

1. An "In Code:" combo box that will list all of the available building code volumes from the dbo.Codes table that are applicable to the Code year of the project. This field can remain blank to return more rows from the Search. Even with the field blank, the search should still only search comments for code volumes of the applicable code year.
2. A "By:" option group that will allow the user to select which fields of the standard comments table they would like to search by (contains Comment Number, Comment Text, Section #, Subject Area, and Narrative selection options).
3. A "Using" text box to allow the users to input a text string to use for their search. Leave this row blank to return all rows for the selected discipline type. *We would like this to be a web type search.*

4. A "Search" command button to execute the search and populate the data grid below with the results of the search.
5. A label placed above the search button that will show the count of the records returned by the search.
6. A "Reset" button to clear the search results from the data grid below.

The thought process for the search section was that a user would perform a search **In** a particular **Code**, **By** comment number or **By** comment text etc., **Using** a certain text string (e.g. doors). We prefer the method of searching by specific field over the method of searching every field, due to the amount of text that will be contained in the narrative and comment text fields of the standard comments table.

The comments section comprises the rest of the form. It contains:
1. A "View Details…" command button (disabled by default).
   a. After a review is selected, this button will open the Standard Comments form in read-only mode displaying the comment that was selected in the data grid below.
2. An "Add Non-Standard Comment..." button (disabled by default).
   a. Only after a search has been performed, this button will open the Add Non-Standard Comment form and allow you to add a comment that is not found in the standard comments.
      i. We want the users to have to search for the comment they wish to add, rather than just going to the non standard comment form every time they wish to enter a comment.
   Paul C: Excellent….Adding comments that were already in the system has been a bugaboo during testing

3. A data grid to display the results of executing a search. This data grid should have clickable column headers that will resort the results.
4. A "Sheet Number" text box field to allow the user to indicate which sheet of the plans or page of the specs this comment applies to.
5. A "Discipline/Functional Area" selection box that will allow the user to indicate which discipline type the comment is being made for (e.g. an Architect making Mechanical comments).
6. A "Comment Explanation/Clarification" field so that the reviewer can add additional text to clarify the reasons or details for the comment.
7. An "Add this Comment" button (disabled by default).
   a. This button will only become enabled if a comment is selected in the data grid AND a Sheet Number has been selected AND a discipline type has been selected.
   b. This button will attach the comment to the review.
8. A "Cancel/Exit" button to cancel any unsaved actions taken so far and to exit the form, returning the user to the Review Comments form.
9. A "Help…" hyperlink that will open a simple form displaying instructions for this form.

Add Review Comments form processes

To add a review comment, the user will follow one of two paths.
1. Path One:
   a. Perform a search for a comment by selecting a code or leaving it blank, selecting a field to search in, specifying search criteria or leaving it blank, and clicking the

search button. If records are returned, continue to b, if no records are returned, repeat step a, or continue to Path Two.

*When performing a search, the code section should be an option. Will the code section be part of the string? – **YES***

b. Scroll through the list of comment records returned by the search to find the comment you wish to add. Once your comment has been found, select it by clicking on the record in the data grid. You will also be able to use Ctrl+click to add multiple comments to the same sheet number.
c. Select the Discipline Type/Functional Area for the comment being made.
d. Enter any Explanation/Clarification needed or leave the field blank if none is needed.
e. Enter the sheet number for the comment. (varchar(20))
f. Click the Add This Comment button.
   i. Data validation will ensure that this comment, sheet, and discipline type combination does not already exist for this review record. If it does, a message box will alert the user and cancel the table insert.

After a comment has been added, the data grid selection (not contents) will be reset, the Sheet and Page Number fields will be reset, and the Add This Comment and the Add non-standard comment button(s) will become disabled. This is to ease the process of entering comments by not forcing the user to re-open and re-execute a search for each comment that is to be entered. The user can simply select another comment, enter sheet and page information and add the new comment.

2. Path Two:
   a. Follow step a. from Path One above. After executing a search, the Add Non-Standard Comment… button will become enabled.
   b. If your search does not return any records or you do not find the comment you need after multiple searches, click the Add Non-Standard Comment… command button. This will open the Add Non-Standard Comment form.
   c. Now, instead of using comment information from the database, the user must enter all appropriate information themselves. This form's details will be covered later.
      i. This form also helps to prevent the reliance on non-standard comment entry by closing itself and resetting the Add Non-Standard Comment button after the add button has been clicked. See pg 15 #9.
   d. If you need to cancel the entering of non-standard comments, click the Cancel/Exit button to return to the Add Review Comments form.

Add Non-Standard Comment form

This form is accessed from the Add Review Comments form by selecting the Add Non-Standard Comment… button following the execution of a Search.

The proposed design for the Review Comments form is shown below:

This form will contain the fields needed to enter a complete comment for a review. It contains:
1. A "Help with this page…" hyperlink that will open a form describing the types of information expected in each field.
2. The Sheet field will be a text field to denote the sheet or page number for the comment.
3. The Code field will be populated from the Codes table. The user will not be allowed to enter their own code, it must come from the list. The available codes will be restricted to codes that have the same code year as assigned to the project.

If the user needs a code that is not included in the list, they must request that it be added by e-mail to Logbook Support.

I do not understand what the plan sheet table is? How is it different from the sheet number? What is the plan sheet table? The possibilities for numbering sheets are limitless. I do not

understand how they could be in a table? And I do not understand why a sheet not included in a list would need to be requested by email?

4. A "Code Section" field (REQUIRED & self-explanatory). Data validation will be enforced on this field as it is in the AMC module to minimize the variations of data that will be entered.
5. A Subject field to describe the major category of the building code part.
6. A Comment field of up to 1000 characters to enter text similar to actual code language but not necessarily identical. The program is not a substitute for the code. The program is a tool to be used in conjunction with the code.
7. A Narrative field of up to 3000 characters to enter the narrative for the comment. A narrative is not always necessary. It should be provided when needed to clarify the intent of a code requirement, provide additional considerations or requirements that are associated with the application of the code provision.
8. An Explanation field for the reviewer to enter a specific explanation or clarification of this specific comment as to why or where it was made.

We would like this #'s 6, 7, and 8 to be spell checked and possible grammar checked because for many of our staff, English is a second language. Spell check should also be used in the add or edit standard comments forms.

9. An Add button to save and add the non-standard comment to the review.
    NOTE: Clicking the Add button will close the form and force the user to search for a standard comment before adding another non-standard comment.
10. A Cancel/Exit button to cancel any unsaved actions and close the form returning the user to the Add Review Comments form.

Management Reports[3]

We would like to create some reports to view comments that have been entered into the system.

Access to these reports will be through the Management Reports Module

The new "Review Comments…" menu item will open a new form called Print Comments Reports. This new form is shown below:

The form contains many options to print a comments report.

When selecting options from the Report By group, the report criteria field label will change accordingly as well as the Pick from list… command button sub routine to ensure that the proper list is loaded for selection.

1. When reporting by project number, the pick from list button should load the advanced project search form so the user can find a project number to use.

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[3] John Donelan: "I had always hoped the program could also track the consultant's performance as well. Can we add License# and facility#?"

       a. This report should show each review for the selected project and a count of the number of comments entered per discipline.

2. When reporting by Comment Number, the pick from list button should load the view comments form to allow the user to search for and select a comment to report on.

       a. ==This report should show comment#, discipline type, & reviewer.==

3. When reporting by Discipline Type (FLSO, ARCH, etc.), no Pick from list functionality is needed.

       a. ==This report should show comment#, subject, code section, & reviewer.==

4. When reporting by Reviewer, the Pick from List should load the staff search form from the review screen initials fields.

       a. ==This report should show comment#, subject, code section, & discipline.==

5. When reporting by comment usage, no criteria field is needed because this report will show all of the comments sorted by usage with the most often used at the top of the list.

6. When reporting by region, the pick from list is not needed.

       a. This report will be similar to the comment usage report but limited to one specific region.

7. The non-standard comments report will be similar to the comment usage report but it will report on non-standard comments only.

We would like the ability to export these reports into an MS Excel file for further manipulation/customization. Reports that show comment details should also display the datetime information for when that particular comment was entered.

FDD's ASU and FSU units are still assembling the requirements for these reports and how they will be run, organized, and formatted. These requirements will be forwarded to the ISS applications staff during development of this project.

How will backchecks impact reports? While I don't think it is appropriate to count the same comments each time there is a backcheck, many times backchecks generate new comments. What do you think? **It is important to count the same comments each time to see how many times a comment has been made during the same review cycle. This will show responsiveness of the client to OSHPD comments.**

View Comments

Users need the ability to search for, print, and view comments contained in the Standard Comments list. The Standard Comments list owners will need to have the ability to Add, Edit, and Remove comments from the comments list. We will need to establish a new right in the Userdat table to allow only users with Comment_Admin rights to add and remove comments.

We will create a new menu item at View->Other Tables->"Standard Comments…" When this menu item is selected, it will load the following form:

Figure 5
This form contains a search section, as well as a results data grid section. The form will open without any results in the data grid. The data grid will be populated only after the execution of a search by the user.

The Search Section contains: *Use AddRvwComments form search functionality (Page 11)*
1. A label to inform the user how many records were returned by the search.

The results data grid section contains:
1. A View button to show the details of a comment selected from the data grid.
2. A Print button so that a user could print out a search result set report.

3. A Print All button to print all of the results of the search.
4. An Add button so that Comment_Admin users can add new comments to the standard comments table. Enabled only for Comment_Admin users.
5. An Edit button so that Comment_Admin users can edit a comment that has been selected in the data grid. Enabled only for Comment_Admin users.
6. A data grid that will display the results of a search.
7. A Cancel/Exit button to facilitate closing the form (Not Shown).

View Comments Processes

To view standard comments, the users will go to the View menu, select Other Tables, then select Standard Comments…

The thought process for the search section was that a user would perform a search **In** a particular **Code**, **By** comment number or **By** comment text etc., **Using** a certain text string (e.g. doors). We prefer the method of searching by specific field over the method of searching every field, due to the amount of text that will be contained in the narrative and comment text fields of the standard comments table.

The data grid will either be populated with the results or be empty and the label in the search section will indicate the number of records returned by the search.

If the user finds a comment that he or she would like more information about, the user will select that comment by clicking on its row in the data grid, then clicking the View button on the form.

If a user would like to add, edit or delete a standard comment, they must first have Comment_Admin rights to enable the Add and Edit buttons on the form.

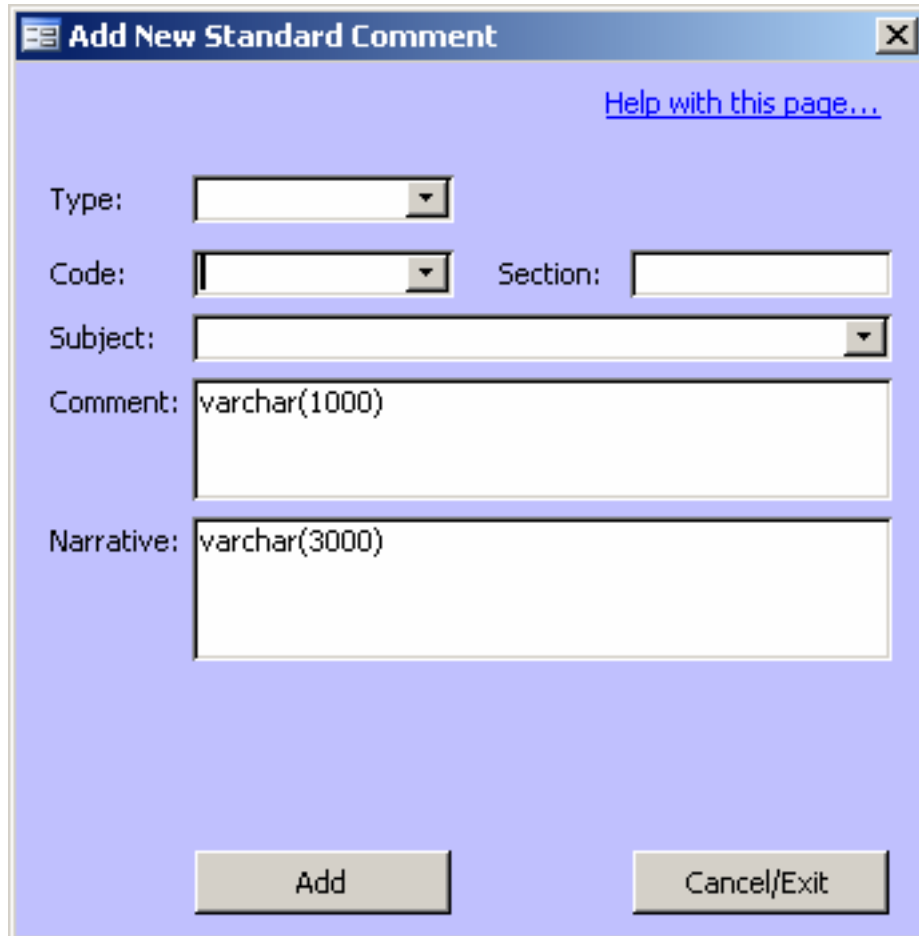The user will then be allowed to click the Add button to add a new standard comment from scratch.

The user will also be allowed to Edit a standard comment by selecting a comment from the data grid by clicking on it's row, then clicking the Edit button. When the user uses the Edit button to open the Standard Comments form, the Delete button will also be visible so that the user can completely remove a comment from the database.

Add/Edit Standard Comments form

This form is accessed by clicking either the Add or Edit button from the View Comments form.

The proposed design for the Add/Edit Standard Comments form is shown below:

This form contains the necessary fields to create a standard comment in the StdComments table. The form contains the following controls:

1. A Type combo box.
   a. This combo box will be populated from the Comment Type[4] table. A value must be selected for this field prior to saving the comment.
2. A Code combo box.
   a. This combo box will be populated from the dbo.Codes table. A value must be selected for this field prior to saving comments[5].

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[4] In addition to the type values for FLSO, Architect, Mechanical, Electrical, and Structural, will there be a need to assign comments to a value that indicates it's applicable to all disciplines?
I don't think there is a need to assign comments to more than one discipline. I don't think this means other disciplines can't use comments from other disciplines when appropriate. Tagging the comment with a discipline provides some structure and is consistent with how business has been conducted in the past. Clients have many disciplines as well. It is about client coordination as well as OSHPD coordination.

3. A "Code Section" text field.
   a. Self explanatory. This field will have data validation enforced to restrict the variation of data that can be entered into this field, similar to the functionality in the AMC module.
4. A Subject combo box field.
   a. This combo box will be populated from the Subjects table.
5. A Comment text field to enter the text similar to actual code language but not necessarily identical. The program is not a substitute for the code. The program is a tool to be used in conjunction with the code.
6. A Narrative text field to enter the narrative for the comment. A narrative is not always necessary. It should be provided when needed to clarify the intent of a code requirement, provide additional considerations or requirements that are associated with the application of the code provision.
7. A Save button to save the comment to the StdComments table
   a. The save button will generate a CommentID for the comment by combining the Type value, Code year, Version, and the next available 4 digit number.
   b. The save button will also reset the form and leave it open to facilitate entering multiple standard comments at one time.
8. A Delete button that will be available only when the form is opened from the Edit button on the View Comments form.
   a. This button will delete the loaded standard comment and close the form and return the focus to the View Comments form.
9. A Cancel/Exit button that will cancel any unsaved actions and close the form, returning the user to the previous form.

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[5] Are comments ever made that do not directly relate to a code volume?
Yes, comments do occur which are not associated with a code volume such as "failure to respond to previous comments", "drawing coordination issues between disciplines". I am sure there are a litany of examples. Whether all these issues can be rolled under CBC Section 106.3.3, Information on plans and specifications, with sufficient clarity is problematic.

Data Conversion/Migration

Data from the existing Access database will have to be imported into the new SQL tables for use. Tables to be imported will be:

1. Subject data
2. Plan/Sheet data
3. Standard Comments data
4. Others?

Other Items

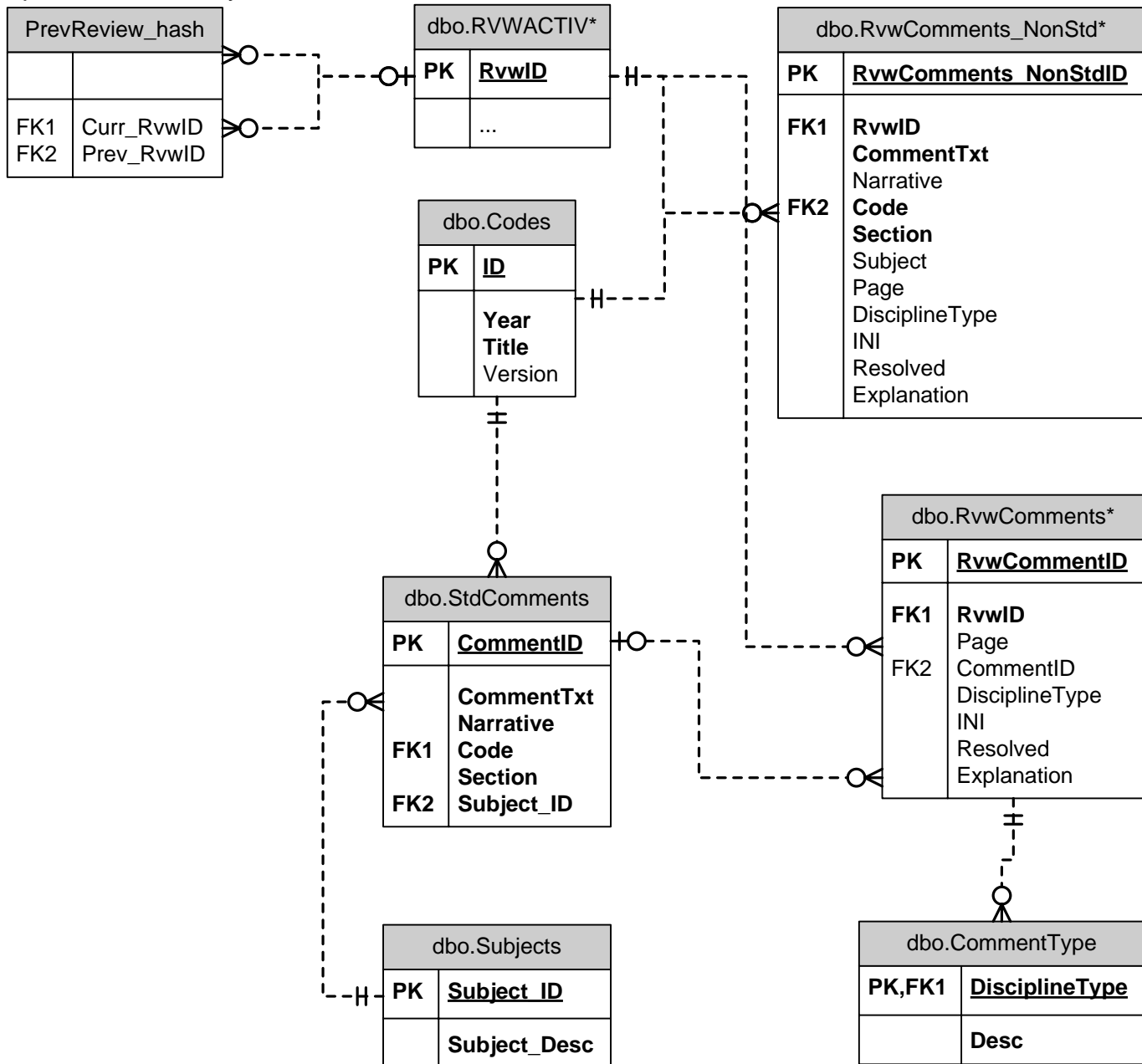1. May need process to copy one, many, or all comments from one code year to the next.

Comments Legend

Paul Coleman's comments are formatted like this.

PrevReview_hash

FK1	Curr_RvwID
FK2	Prev_RvwID

dbo.RVWACTIV*

PK	**RvwID**
	...

dbo.RvwComments_NonStd*

PK	**RvwComments_NonStdID**
FK1	**RvwID**
	CommentTxt
	Narrative
FK2	**Code**
	Section
	Subject
	Page
	DisciplineType
	INI
	Resolved
	Explanation

dbo.Codes

PK	**ID**
	Year
	Title
	Version

dbo.RvwComments*

PK	**RvwCommentID**
FK1	**RvwID**
	Page
FK2	CommentID
	DisciplineType
	INI
	Resolved
	Explanation

dbo.StdComments

PK	**CommentID**
	CommentTxt
	Narrative
FK1	**Code**
	Section
FK2	Subject_ID

dbo.Subjects

PK	**Subject_ID**
	Subject_Desc

dbo.CommentType

PK,FK1	**DisciplineType**
	Desc

NOTES:

* Denotes tables needing HISTORY equivalents

REVISED: June 21, 2005